



Making PowerPoint Documents Accessible

Overview

PowerPoint is a powerful, widely used tool in our training toolbox, but it is predominantly a visual medium. Many of the PowerPoint tools we use to make our presentations more engaging or control information flow result in presentations that are not accessible to those with disabilities or those that use assistive technologies. It is easier to design your slides with accessibility in mind rather than to try to take your design and try to make it accessible.

Note: If there is no other way to make the content accessible, provide a separate accessible version. This is most often done by creating a full-text, 508 compliant text document.

Use the following as a checklist and guide to help craft presentations that are useful to all.

File Names and Properties

Element	Description
File Name	Make file names descriptive and concise. They should contain no special characters and be no more than 30 characters in length. Note: Hyphens (-) are acceptable in file names.
Document Properties	Complete the Title, Author, Subject, and Tags fields.

Layout and Formatting

We recommend using only the basic PowerPoint templates for slides.

Element	Description
Bullets and Numbering	Use the Bullets and Numbering tools to create bulleted or numbered lists. Do not manually type lists preceded by using special characters such as hyphens, asterisks, or wingdings.
Color Contrast	Use very dark-colored lettering on a white or light-colored background.
Color for Emphasis	Provide an alternate method of adding emphasis to text; do not rely solely on color.
Comments	Remove any comments from the text.
Fonts	Use standard fonts such as Times New Roman, Verdana, Arial, Tahoma, Helvetica, or Calibri. For online and projected presentations, Sans Serif fonts are easier for most people to read.
Footnotes	Create footnotes using the Footnotes linking tool.
Hyperlinks and Email Addresses	When written out, web addresses should be complete, including the http:// or https://. Email addresses should also be complete and correct. Both should be linked to an active web or email destination.
Multimedia	If you are including other types of media, such as audio or video files within your presentation, ensure that they also meet government standards for 508 compliance.
Outline View	Screen readers can read only text that appears in Outline view. All text should be viewable in the Outline view.
Print Preview	Use the print preview feature to ensure the presentation has the correct flow and that the placement is correct for images, tables, and there are no stray lines of text.

Element	Description
Sequencing	Ensure the items on your slide are sequenced properly for the screenreader.
Text Animations	Do not use text that flashes, flickers, or other animated text.
Titles	Each slide should have a unique title.

Images

Element	Description
Alternative (Alt) Text	Use alternative text to describe any images or shapes that are important to your presentation. Do not provide alternative text for images that are purely decorative.
Background Images and Watermarks	We recommend that you do not use pictures, images, or watermarks as backgrounds in your presentation as this can cause problems for those with low vision.
Chart Labels	Ensure that your charts all have a title, legend, and access labels.
Descriptive Text	Include text that describes a complex image, chart, or graph above or below the image.
Grouping Images	Ensure all images, objects, and graphics that make up a single combined image are grouped.
Smart Art	As a general rule, do not use SmartArt.

Tables

When creating tables, use the Tables Tool on the Insert tab. Create your table using the right to left top / to bottom reading order.

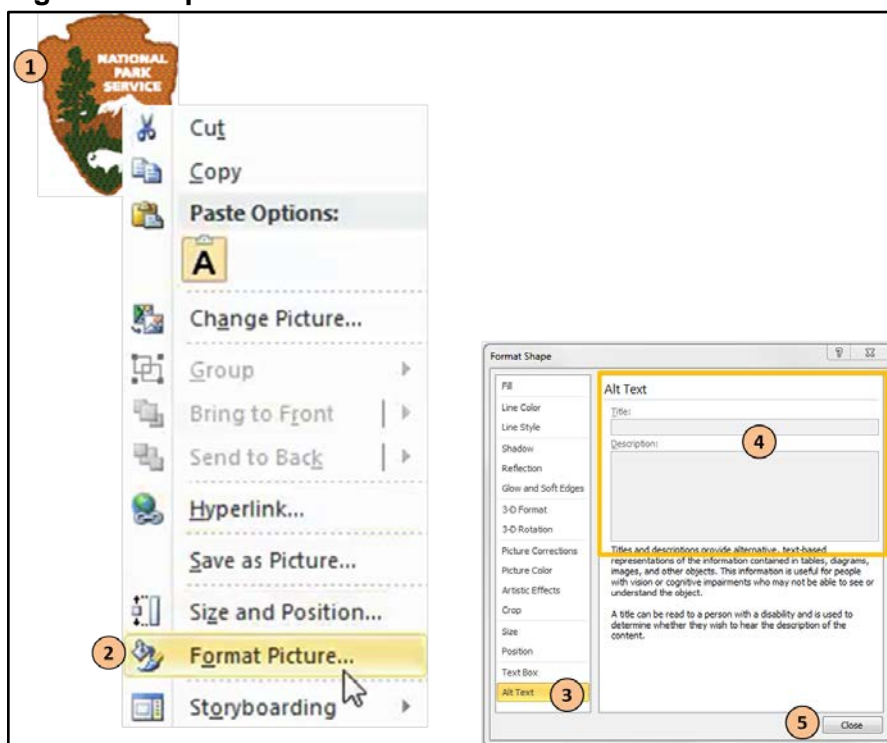
When including tables created outside of PowerPoint, save them as an image file and insert them within your presentation as an image, be sure to add Alt and Descriptive text as needed.

Element	Description
Cells	Avoid blank or empty cells. Do not merge cells unless the final product will be a PDF or HTML file.
Descriptions	As with images, include brief descriptive text for the table.
Table Row Page Breaks	Rows should break cleanly at the end of a page.
Table Header Row	Designate the first row of your table as the header row.

Alternative (Alt) Text

Add alternative text for images, charts, graphs, etc. When adding alternative text, be brief but descriptive. Assistive technologies use the Description field of the graphic when “reading” the information to the user. There are no hard and fast rules to what to say in your alternative text. Many sources recommend 120 to 130 characters for simple images. For more complex images, such as charts, maps, or diagrams the alternative text should be in enough detail to allow the user to understand what they convey. More detailed information can be conveyed in [Descriptive Text](#) within the document. If the image is purely decorative, leave the alt text blank.

Figure 1: Steps to add Alt Text



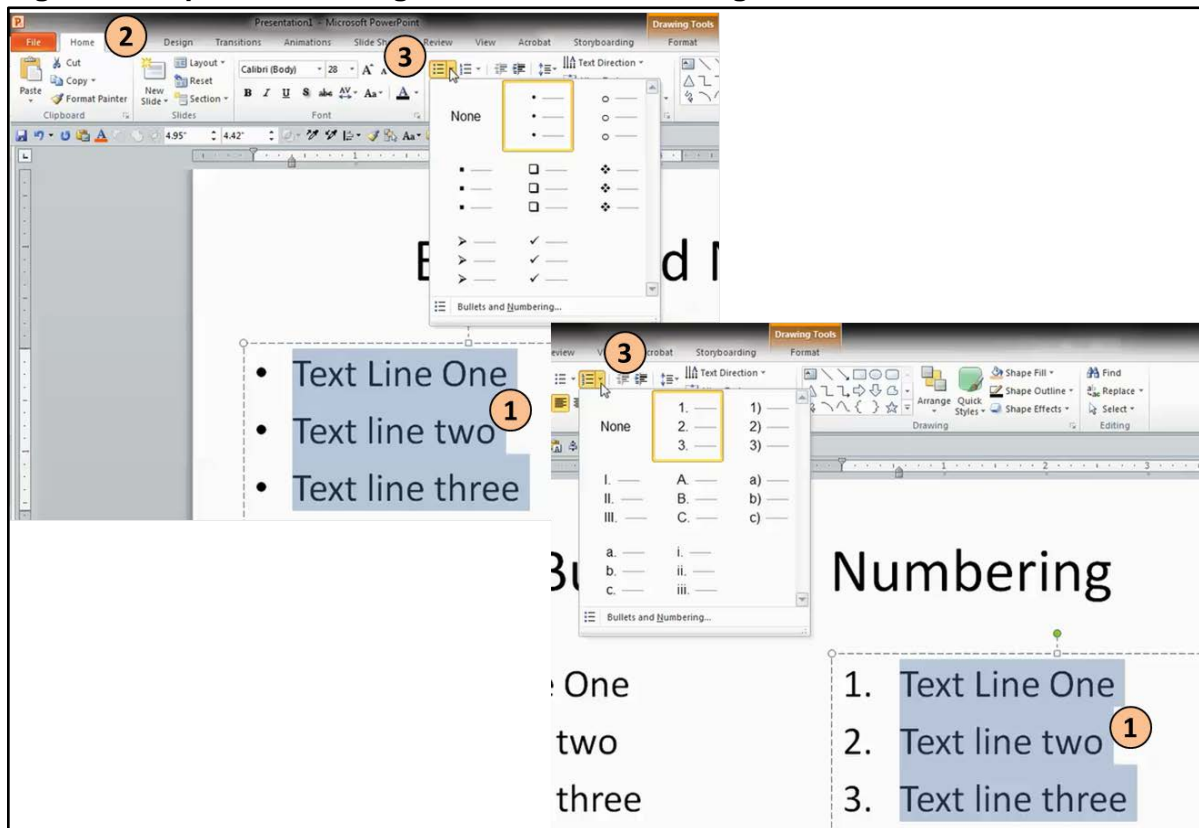
To add Alt Text:

1. Right-click the picture or object.
2. Click **Format** (Object or Picture).
3. Click **Alt Text**.
4. Complete the following:
 - **Title** – Type an identifiable title for the graphic.
 - **Description** – Type a brief description of the image.
5. Click **Close**.

Bullets and Numbering

When creating bulleted or numbered lists, use the Bullets or Numbering tool in PowerPoint. Using these tools provides the right formats for assistive technologies to use. Change bullet shapes as needed using the Define new bullet feature as needed. Do not use Wingdings for bullets.

Figure 2: Steps to add/change bullets and numbering



To add Bullets or Numbering

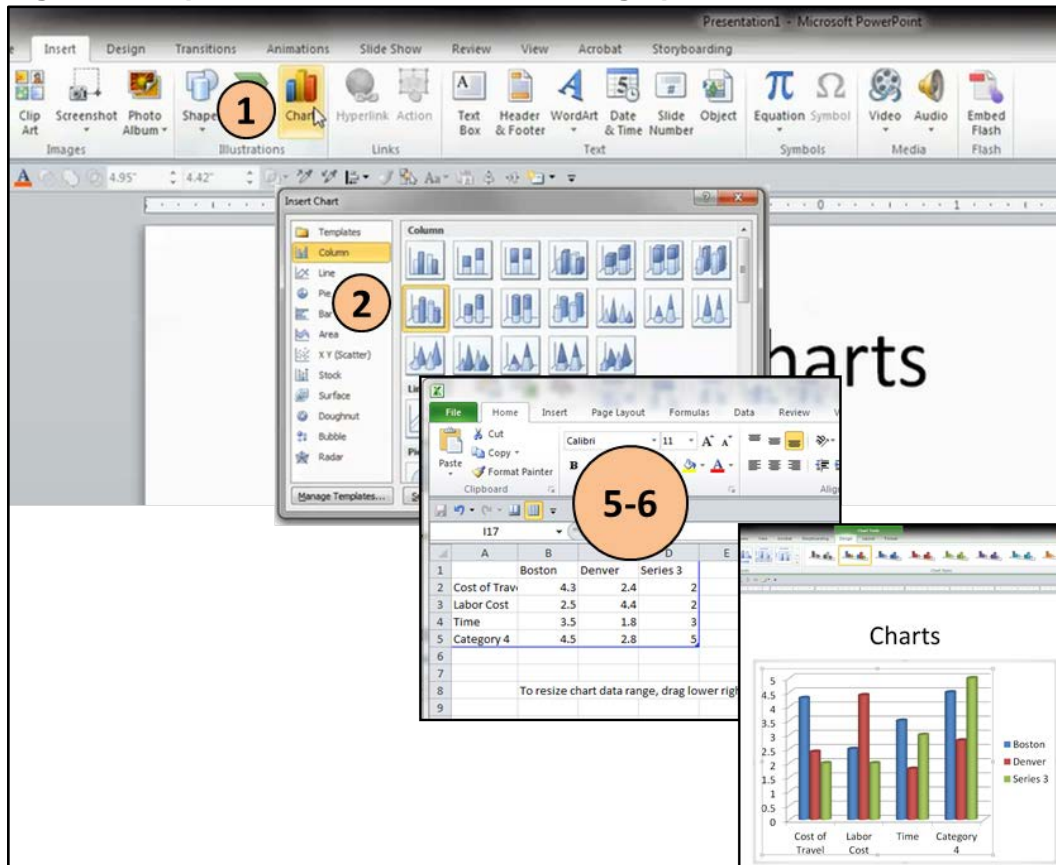
1. Select the text or object.
2. Click the **Home** tab.
3. Click the **Bullet** or **Number** icon in the toolbar.

(Note: To change the bullet: click the down-arrow next to the bullet and select another style bullet. To restart the numbering, highlight the text to renumber, click the down-arrow next to the Number icon, click **Bullets and Numbering**, change the value in the Start At field.)

Chart Labels

For best results, use PowerPoint chart templates when creating a chart or graph.

Figure 3: Steps to Add and Label a chart or graph

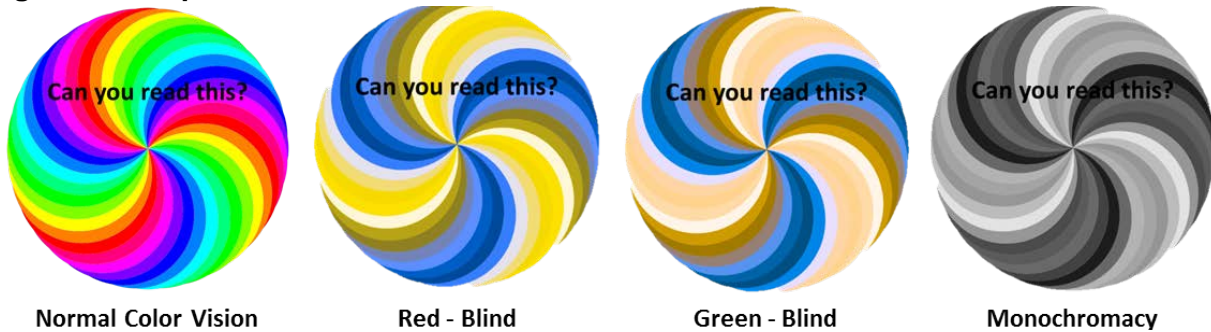


To add labels to a chart or graph:

1. Click the **Insert** tab.
2. Click **Chart**.
3. Select the chart to add to your slide.
4. Click **OK**.
PowerPoint will insert the chart on your slide and open a PowerPoint window.
5. Click in the **Category** or **Series** fields and type the new label text.
6. Click in the **Number** fields and type the new values.
7. Close the spreadsheet.

Color

Figure 4: Samples of colorblindness



Color Contrasts

Text must be easy to read in comparison to the background. Current trends of using variations of the color can make text very difficult to read for those with visual impairments. Test your color contrasts by printing them in grayscale or by using an online tool such as [WebAIM's Color Contrast Checker](#), [Coblis - Color Blindness Simulator](#), or another online tool.

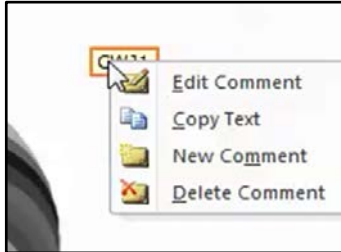
Color for Emphasis

Close to 9% of the population has some form of color blindness. Red/Green is the most common form of colorblindness but other forms exist. When using color to emphasize a piece of text, as part of a graphic, or image include an alternate means of emphasis such as bolding or italics with text, and pattern fills or various line formats in graphics or images. There are a number of online color blindness tools, such as [Coblis' Color blindness Simulator](#), which allow you to view your images through the eyes of those with numerous types of color blindness. Save your slides as an image file (**File > Save As >** select an image format – *PNG, JPG, GIF*, etc. – From the **Save as type:** field) so you can upload it into one of the tools.

Comments

Assistive technologies may read editorial comments even when they are not visible to the user. Remove all comments before publishing.

Figure 5: Right-click drop-down menu for deleting a comment box



To remove a comment:

1. Right-click the comment box
2. Select **Delete Comment**

Descriptive Text

For complex images such as charts and graphs, in addition a brief alt text description, type a brief but complete description in a paragraph immediately above or below the image. This can include what the image or graph is intended to convey.

Example:

Figure 6: Image of a graphic with descriptive text

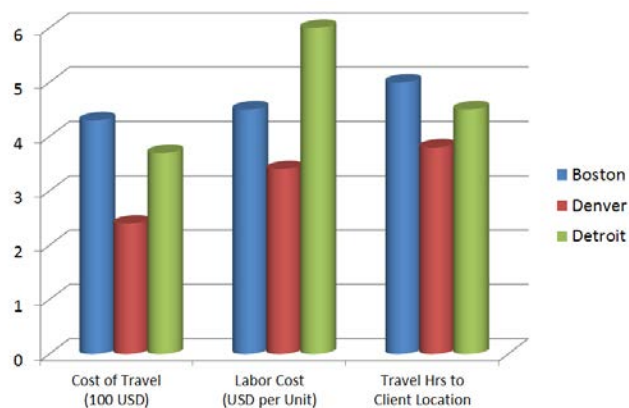
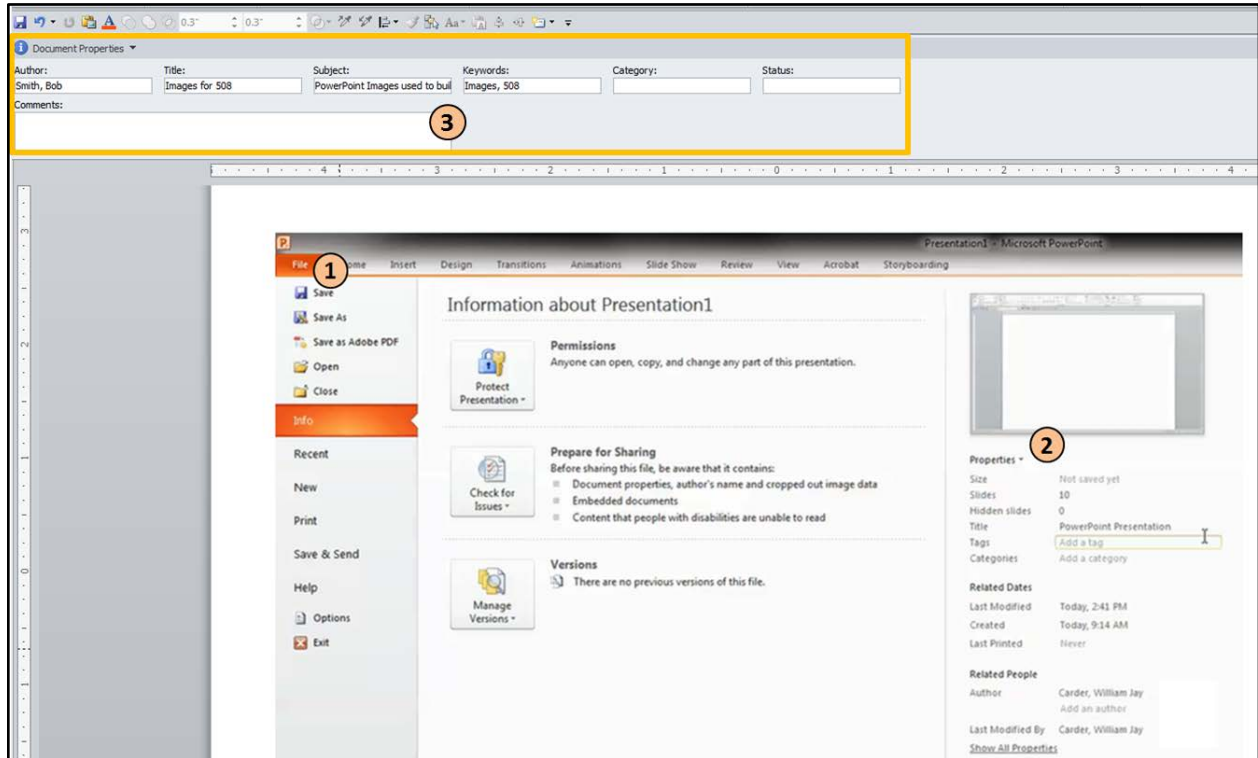


Figure 6. Bar graph comparing cost of travel, labor costs, and number of hours to travel to client locations in Boston, Denver and Detroit. Cost of travel is highest in Boston, and least expensive in Denver. Labor cost are highest in Detroit and lowest in Denver. Travel hours to the client offices are highest to Boston and Lowest to Denver.

Document Properties

Document properties provide the user with a basic overview of the document such as who authored it, the title, and keywords contained in the text. Screen readers use this information to help identify documents to the user.

Figure 7. Document Properties

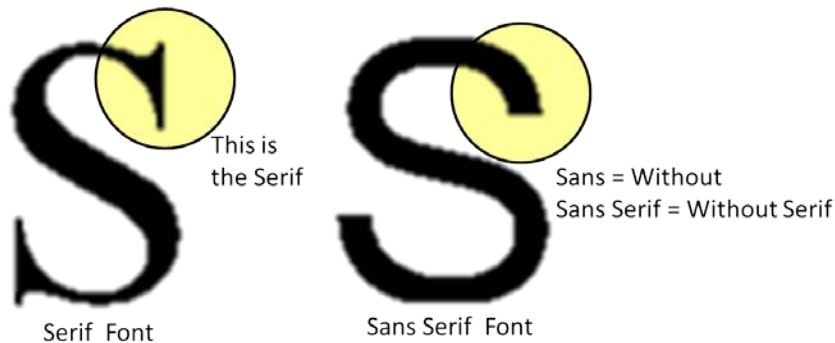


To access document properties:

1. Click **File > Info**.
2. Select **Properties**.
3. Complete the following fields:
 - **Title** – The title of your presentation
 - **Author** – The primary author should be the Government Organization – NPS
 - **Subject** – A description of your presentation
 - **Tags** – Keywords

Fonts

Figure 8: Serif vs. Sans Serif Font



We recommend using the standard pre-loaded fonts that come with your PowerPoint.

For Print, most people can read a serif font, such as Times New Roman, more easily than a sans serif font.

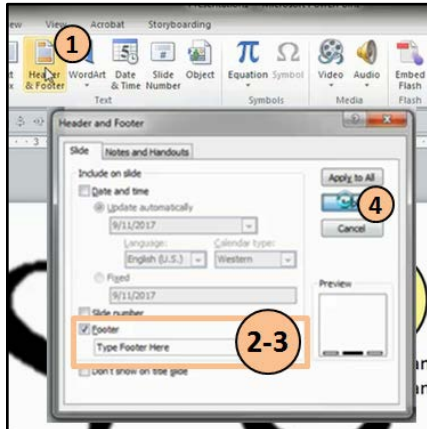
Sans serif fonts, such as Arial, are generally more easily read online or when projected in a presentation.

For presentations, ensure the font size is large enough that old eyes can still read it from the back of the room; at least 24 point font for informational text and larger for headings/sub-headings. One rule of thumb is to find out the age of the oldest person in your audience and divide it by two - that is the optimal font size for that presentation.

Footnotes

Use the Header & Footer tool to create headers and footers for your presentation if needed.

Figure 9: Using the Footnote Tool



To add a footnote:

1. Click **Header & Footer** on the Insert tab.
2. Select the Footer checkbox.
3. Type your footnote in the box below the word footer.
4. Click **Apply**.

Grouping Images

Because of the way screen readers treat objects, group or combine all related objects, images, or graphics into a single object.

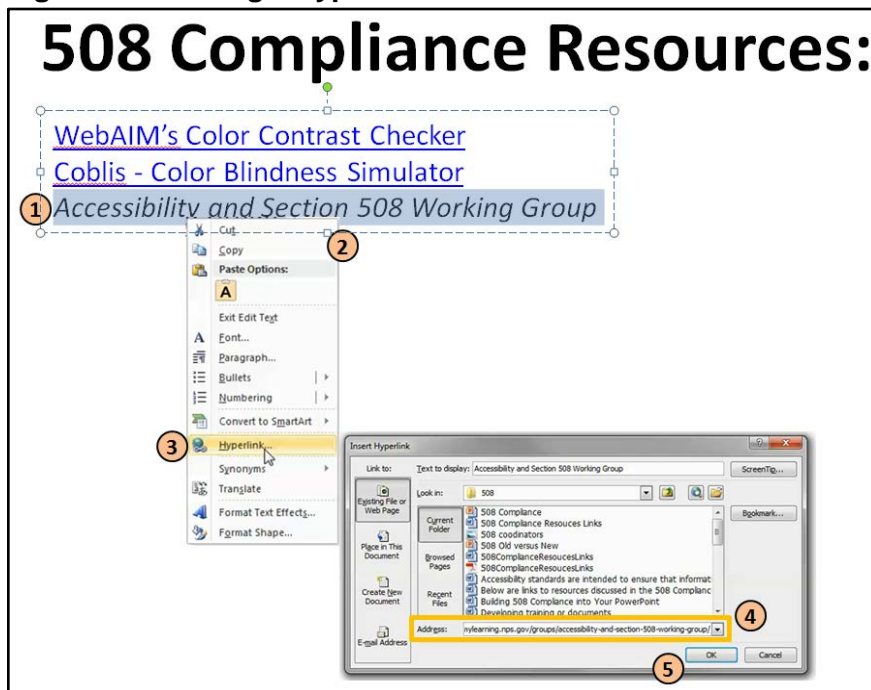
To group objects:

1. Press **SHIFT** and click *each object* to combine.
2. Press **Ctrl + G** to group the selected objects.

Hyperlinks and Email Addresses

Screen readers read each character of a URL one character at a time. When adding a URL as an active link, use the Hyperlink tool to create an active text link rather than spelling out a long URL. Generally, we recommend selecting a title, name, or object to use as the hyperlink, rather than showing the URL or using 'Click Here' text.

Figure 10: Adding a hyperlink



To add a hyperlink

1. Highlight the *text* or select the *object* to use as the hyperlink.
2. Right-click the *selected text* or *object*.
3. Select **Hyperlink** from the drop-down menu.
4. Type the URL for the link in the **Address** field.
5. Click **OK**.

Figure 11: Adding an email link



To add an Email link

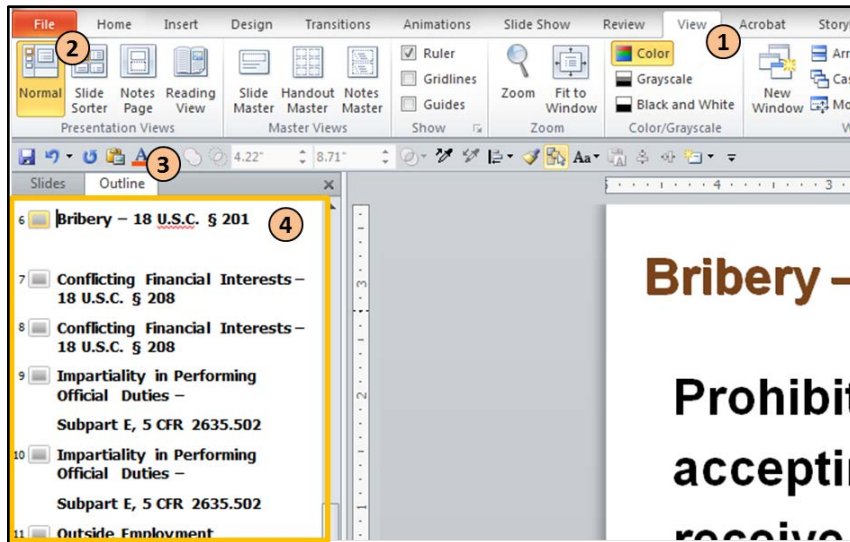
1. Highlight the *text* or select the *object* to use as the email hyperlink.
2. Right-click the *selected text* or *object*.
3. Select **Hyperlink** from the drop-down menu.
4. Click **Email Address**.
5. Complete the following:
 - Type the *Email Address* in the **Email Address** field.
 - Type a *subject* for the email in the **Subject** field if needed.
6. Click **OK**.

Outline View

The Outline view displays your titles and bullet points from your slides. This is the text that screen readers use. Use the slide templates for best results.

Note: inserted text boxes may not be picked up in outline view.

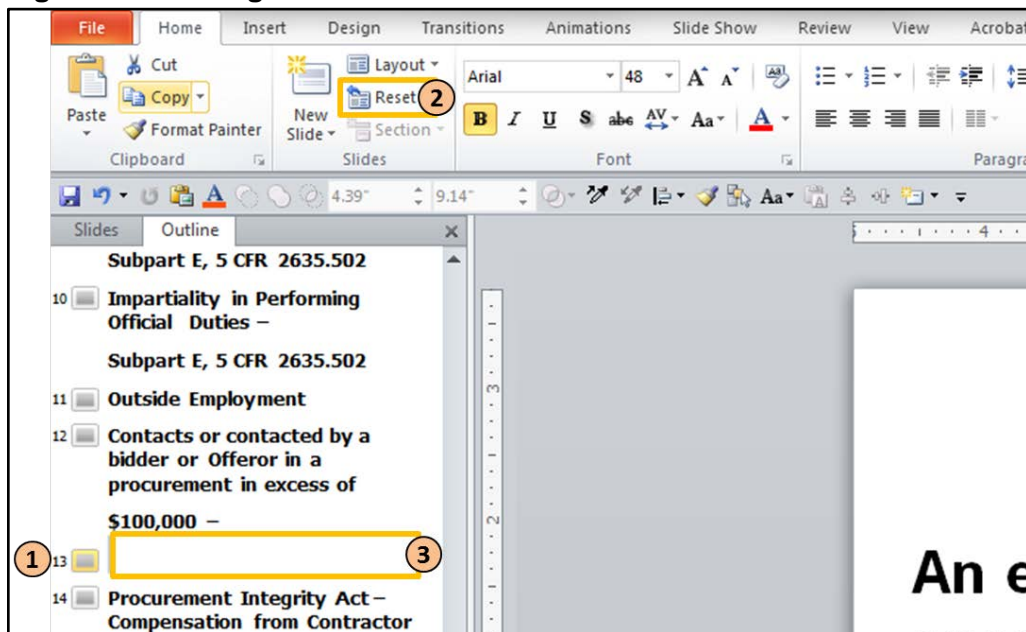
Figure 12: Displaying Outline View



To view your slides in outline view:

1. Verify you are viewing slides in the normal view (**View > Normal**).
2. Click **Outline** form the Slides/Outline Tab.
3. Verify that each slide has a title (bold text on the first line.)
4. Verify that any additional text displays beneath the title.

Figure 13: Adding a title



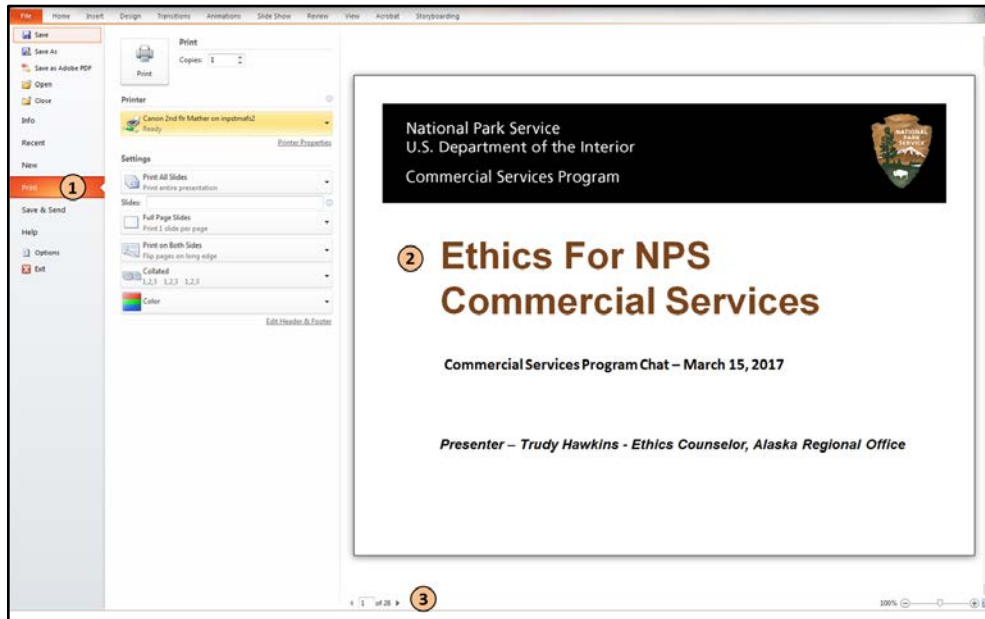
To add a title:

1. Select the slide.
2. Click **Reset** from the Home menu.
3. Type the slide title in the outline **Name** field
4. Reformat, and reposition title on slide as needed.

Print Preview

Print Preview enables you to review your document before you publish it.

Figure 14: Displaying a presentation in Print Preview mode.



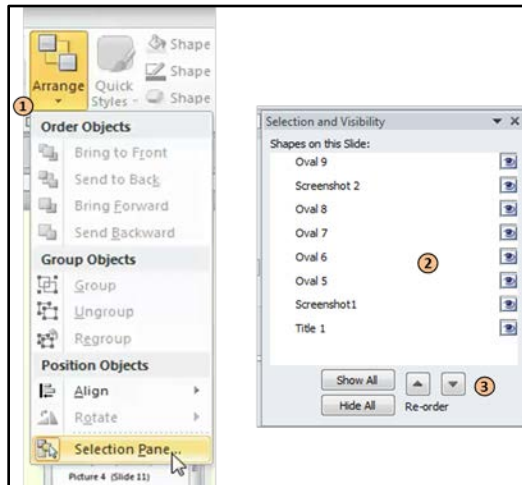
To view a presentation in Print Preview mode:

1. Click **File > Print**. The presentation displays on the right side of the Print window.
2. Click the displayed slide to select it.
3. Use the Page Next arrows on the screen or the up/down arrows on your keyboard to scroll through your presentation.

Sequencing

Screen readers “read” a slide from the first object (including text) you added to the last. This may not be the order in which you want the information read. Use the Selection Pane to sequence the objects in the order in the correct order.

Figure 15: Displaying Selection Pane for Sequencing



To sequence read order for screen items

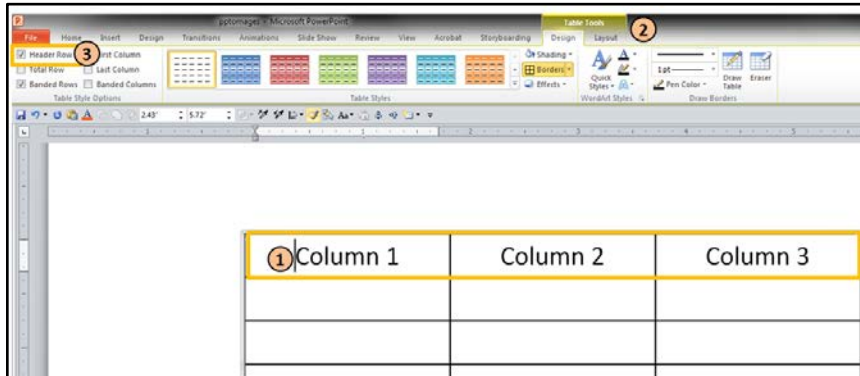
1. Click **Arrange > Selection Pane** to display the Selection Pane from the Home tab.
2. Select the object to sequence.
3. Use the Up and Down arrows at the bottom of the Selection Pane to move the object up or down in the list.

Note: The screen reader starts reading from the bottom of the list.

Table Headings

Proper formatting of your table is imperative in allowing screen readers to work correctly. Do not just create table headings by modifying the font.

Figure 16: Designating a table row as the “header” row



To designate a header row:

1. Click in the top table row.
2. Click the **Table Tools** tab.
3. Click the **Header Row** checkbox in the Table Style Options group.

Table Row Page Breaks

Ensure the table breaks cleanly between lines at the bottom of a slide. Different monitors and projector and other display devices have different aspect ratios. Do not run a table to the bottom of a slide. You will run the risk of having the bottom information cut off. If a table is getting long, consider reducing the number of words, the text size, or the line spacing or simply continue the table on the next slide.

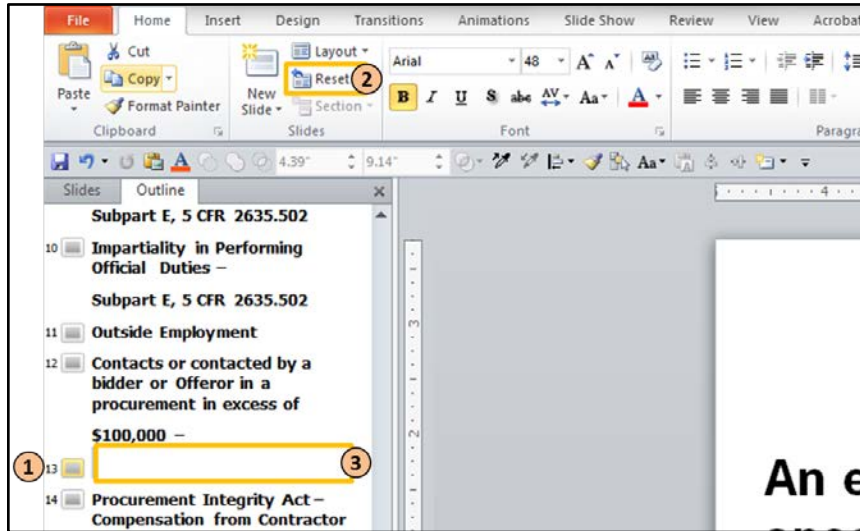
Text Animations

Current practice is to use text animations, such as fades, to control conversation and information revelation. Unfortunately, text animations cause screen readers to start at the beginning of the slide every time new text is revealed. Other types of text animations may make it difficult for users with other types of disabilities to use.

Titles

Screen readers rely on titles to help signal to their users when a slide has changed. Use the title functionality to create properly formatted titles for each slide. The preformatted slides will contain slide titles. If a slide does not have a title, you can add one.

Figure 17: Adding a missing title



To add a missing title:

1. Select the slide.
2. Click **Reset** from the Home menu.
3. Type the slide title in the outline **Name** field
4. Reformat, and reposition title on slide as needed.

To hide a title to make it “Invisible” but still readable by e-readers:

For aesthetics, flow or some other reason, you may not want the title to display on a slide. Rather than deleting it, hide it so that it is available for screen readers.

Figure 18: Using the Selection Pane to Hide a slide title



To hide a title:

1. Select the title box.
2. Click **Arrange** from the **Home** tab.
3. Click **Selection Pane** from the drop-down menu.
4. Click the **Eye icon** corresponding to the title in the Selection and Visibility box.